

REMARKS

Claims 1-26, 32, 38-63, 69, 82-83, and 115-126 have been canceled without prejudice. Applicants reserve the right to pursue the canceled subject matter in one or more divisional or continuation applications. Claims 27-29, 64-66, and 91 have been amended to recite a nucleic acid consisting of at least 50 contiguous nucleotides or a nucleic acid encoding a polypeptide consisting of at least 30/50 contiguous amino acids. Claims 78-81, 92-95 and 104-107 have been amended to recite a "polynucleotide sequence encoding the polypeptide sequence." Claims 77 and 103 have been amended to refer to "a polypeptide comprising..." No new matter is added by the amendments to the claims. After entry of this amendment, claims 27-31, 33-37, 64-68, 70-81, and 84-114 will be pending.

I. Rejoinder

Applicants respectfully request rejoinder of claims 75-76 once claims 27 and 66 are found allowable. In light of the decisions in *In re Ochiai*, 71 F.3d 1565, 37 USPQ2d 1127 (Fed. Cir. 1995) and *In re Brouwer*, 77 F.3d 422, 37 USPQ 2d 1663 (Fed. Cir. 1996), a notice was published in the Official Gazette which set forth new guidelines for the treatment of product and process claims. *See* 1184 OG 86 (March 26, 1996). Specifically, the notice states that:

in the case of an elected product claim, rejoinder will be permitted when a product claim is found allowable and the withdrawn process claim depends from or otherwise includes all the limitations of an allowed product claim.

Id. Accordingly, if claims 27 and 66 are found allowable, Applicants respectfully request that claims 75 and 76 be rejoined and examined for patentability. *See also* M.P.E.P. § 821.04.

II. Claim Objections

Claims 78-83, 92-95, 104-107, 116-119 were objected to for reciting "polynucleotide sequence encoding a polypeptide sequence is (x)." Claims 116-119 have been canceled. Claims 78-83, 92-95, and 104-107 have been amended to recite "polynucleotide sequence encoding the polypeptide sequence is (x)" according to the Examiner's suggestion. Claims 77 and 91 have been amended to recite "a polypeptide

comprising" or "a polypeptide consisting of." Applicants respectfully submit that the amendments to the claims overcome the Examiner's objections. Applicants therefore request withdrawal of the objections to the claims.

III. Rejections under 35 U.S.C. §112, first paragraph

New Matter

Claims 77, 80, 83-90, 115, 117, 119-126 were rejected under 35 U.S.C. § 112, first paragraph as introducing new matter for reciting "a polynucleotide encoding amino acids 59-73 of SEQ ID NO:2 or the "purine binding motif." Claims 115, 117, 119-126 have been canceled. Therefore this rejection is moot with respect to these claims. Claims 77, 80, and 83-90 have been amended to delete reference to "amino acids 59-73 of SEQ ID NO:2 or "the purine binding motif." Applicants therefore request withdrawal of this rejection.

Written Description

Claims 27-31, 33-37, 64-68, and 70-74 and claims 77, 80, 83-102, 115, 117, and 119-126 were rejected under 35 U.S.C. §112, first paragraph as lacking written description for polypeptides comprising "sequences of at least 50 contiguous nucleotides," polypeptides comprising "amino acids 59-73 of SEQ ID NO:1 or the recited motif."

Claims 27-31, 33-37, 64-68 and 70-74 have been amended to refer to a nucleic acid molecule consisting of "at least 50 contiguous nucleotides." Applicants submit that the amendments to the claims overcome this rejection and request its withdrawal.

Claims 77, 80, 83-87 have been amended to delete reference to amino acids 59-73 or the purine binding motif. Therefore, this rejection is now moot.

Claims 91-99 have been amended to recite "a polypeptide sequence consisting of at least 30/50 contiguous nucleotides." Applicants submit that the amendments to the claims overcome this rejection and request its withdrawal.

Claims 115, 117 and 119-126 have been canceled. Therefore this rejection is now moot.

Enablement

Claims 27-31, 33-37, 64-68 and 70-74 and claims 77, 80, 83-104, 106, 108-115, 117, and 119-126 were rejected under 35 U.S.C. §112, first paragraph as not enabled for (1) polynucleotides comprising at least 50 contiguous nucleotides; (2) polypeptides comprising amino acids 59-73 of SEQ ID NO:2 or the purine binding motif; (3) polypeptides comprising at least 30/50 contiguous amino acids; (4) polypeptides at least 90% identical to SEQ ID NO:2 or the polypeptide encoded by the cDNA in ATCC Deposit No. 75844 with HPRT activity; (5) host cells; and (6) methods of producing proteins.

With respect to (1): Claims 27-29 and 64-66 have been amended to recite polynucleotides consisting of at least 50 contiguous amino acids. The Examiner has acknowledged that polynucleotides consisting of fragments of SEQ ID NO:1 or the cDNA contained in ATCC Deposit No. 75844 is enabled. Applicants therefore submit the amendments to the claims overcome this rejection.

With respect to (2): Claim 77 has been amended to delete reference to "amino acids 59-73 of SEQ ID NO:2" or the "purine binding motif" and claims 115-126 have been canceled. Applicants submit the amendments to the claims overcome this rejection.

With respect to (3): Claim 91 has been amended to recite polypeptides consisting of at least 30/50 contiguous amino acids. Applicants submit the amendments to the claims overcome this rejection.

With respect to (4), Applicants respectfully traverse. Claims 103-114 are directed towards a polynucleotide encoding polypeptide with at least 90% (95%) identity to SEQ ID NO:2 or the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844 that has HPRT-2 activity.

The test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. *United States v. Teletronics, Inc.*, 857 F.2d 778 (Fed. Cir. 1988). The Examiner has acknowledged that one of skill in the art can readily make a polypeptide having at least 90% identity to SEQ ID NO:2 or ATCC Deposit No. 75844. The Examiner has also acknowledged that detecting HPRT-2 activity is known. Therefore, Applicants submit that one of skill in the art,

upon reading the specification, could readily make the claimed polypeptides having at least 90% identity and screen these polypeptides for HPRT-2 activity.

Screening polypeptides for activity is merely routine experimentation. The fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation. *In re Certain Limited-Charge Cell Culture Microcarriers*, 221 USPQ 1165 (Int'l Trade Comm'n 1973). The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498 (CCPA 1976).

The present situation is similar to that in *In re Wands*, 858 F.2d 731 (Fed. Cir. 1988), where the Federal Circuit concluded that it was not undue experimentation to make monoclonal hybridomas and then screen the hybridomas for those that secrete antibody with the desired characteristics. Similarly, it would be merely routine experimentation for one skilled in the art to make an polypeptide having at least 90% identity to SEQ ID NO:2 or the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844 and screen the polypeptide for HPRT-2 activity. Applicants therefore submit that the claims are enabled and request withdrawal of this rejection.

Applicants submit that due to the amendments and remarks provided with respect to (1) to (4), above, the rejections with respect to (5) and (6) are also overcome. Applicants therefore request withdrawal of this rejection.

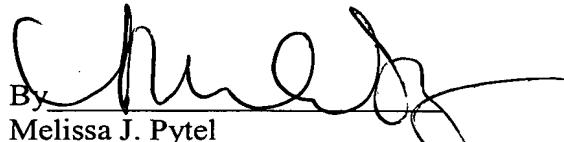
Conclusion

Applicants respectfully request the amendments and remarks of the present response be entered and made of record in the present application. In view of the foregoing amendment and remarks, Applicants believe they have fully addressed the Examiner's concerns and that this application is now in condition for allowance. An early notice to that effect is urged. The Examiner is invited to call the undersigned at the phone number provided below if any further action by Applicants would expedite the allowance of this application.

Applicants believe that there are no fees due in connection with the filing of this paper. However, should a fee be due, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension of time under 37 C.F.R. § 1.136, such an extension is requested and the appropriate fee should also be charged to our Deposit Account.

Dated: August 16, 2004

Respectfully submitted,


By _____

Melissa J. Pytel

Registration No.: 41,512
HUMAN GENOME SCIENCES, INC.
14200 Shady Grove Road
Rockville, Maryland 20850
(301) 610-5764

KKH/MJP/ba